What is claimed is:

1. An internal gear pump comprising:

(a) an inner rotor having an addendum formed by a smooth curve and a dedendum formed by a hypocycloid; and

(b) an outer rotor having a tooth profile determined by the steps of:

(b1) revolving the center of the inner rotor around the center of the outer rotor so as to form a circle having a diameter of 2e + t, where "e" is the amount of eccentricity between the center of the inner rotor and the center of the outer rotor and "t" is the maximum value of the interrotor clearance between the outer rotor and the inner rotor pressed against the outer rotor;

(b2) rotating the inner rotor on its own axis 1/n times while the center of the inner rotor makes one revolution in the circular orbit, where "n" is the number of teeth of the inner rotor;

(b3) drawing the envelope of the group of the tooth-profile curves of the inner rotor formed by its revolution; and

(b4) using the envelope as the tooth profile of the outer rotor (hereinafter the same definition of the "e," "t," and "n" as above is applied).

2. An internal gear pump as defined by claim 1, wherein the smooth curve forming the addendum of the inner rotor is an epicycloid.

3. An internal gear pump as defined by claim 1, wherein the smooth curve forming the addendum of the inner rotor is a curve constituting a major portion

of the upper half of an ellipse when its major axis is horizontally positioned.

4. An internal gear pump comprising:

(a) an inner rotor having:

(a1) an addendum formed by a smooth curve modified by the steps of:

(a1a) revolving the center of a tentative inner rotor around the center of a tentative outer rotor so as to form a circle having a diameter of 2e + t;

(a1b) rotating the tentative inner rotor on its own axis 1/n times while the center of the tentative inner rotor makes one revolution in the circular orbit;

(a1c) drawing the envelope of the group of the tooth-profile curves of the tentative inner rotor formed by its revolution;

(a1d) using the envelope as the tooth profile of the tentative outer rotor;

(a1e) by using the tooth profiles of the tentative inner and outer rotors, determining the position of the trailing end of a tooth face, necessary to close up the pump chamber, in the addendum of the tentative inner rotor;

the tooth face having the leading end at the top of the addendum;

(a1f) determining the position of the tooth-engaging point where the tentative inner rotor engages the tentative outer rotor;

(a1g) shifting the position of another tooth face lying at the location from the position of the above-described trailing end to the tooth-

engaging point to a place inside the curve forming the original tooth profile; and

(a1h) using the profile after the position modification as the tooth profile of the addendum of the inner rotor; and

(a2) a dedendum formed by a hypocycloid; and

(b) an outer rotor having a tooth profile determined by the steps of:

(b1) revolving the center of the inner rotor, whose addendum has the tooth profile finally determined through the above-described steps, around the center of the outer rotor, whose tooth profile is to be finally determined, so as to form a circle having a diameter of $2e + t$;

(b2) rotating the inner rotor on its own axis $1/n$ times while the center of the inner rotor makes one revolution in the circular orbit;

(b3) drawing the envelope of the group of the tooth-profile curves of the inner rotor formed by its revolution; and

(b4) using the envelope as the tooth profile of the outer rotor.

5. An internal gear pump as defined by claim 4, wherein the smooth curve forming the addendum of the inner rotor is an epicycloid.

6. An internal gear pump as defined by claim 4, wherein the smooth curve forming the addendum of the inner rotor is a curve constituting a major portion of the upper half of an ellipse when its major axis is horizontally positioned.